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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,152	10/24/2000	Kunihiko Noguchi	450100-02779	3303
20999	7590	10/05/2005	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			LESPERANCE, JEAN E	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,152

Applicant(s)

NOGUCHI, KUNIHIKO

Examiner

Jean E Lesperance

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment with the request for continuation filed August 18, 2005 is entered and claims 1-13 are pending.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Miichi et al. (US Patent 5,880,745) in view of Urade et al. (US Patent 6,272,644).

As to claim 1, Miichi discloses a projection display apparatus (liquid crystal projection apparatus, see Abstract) connected to a control device as a host (personal computer 15 as shown in figure 5) through a serial interface (link 16 as shown in figure 5, column, lines), in which data is transmitted/received bidirectionally to display a picture on a display screen 14 as shown in figure 5, column 7, lines 57-58), said apparatus comprising:

display means (liquid crystal display panel, column 7, line 14) for receiving display data from said control device and projecting a picture (OHP 13, column 6, lines 60-62) represented by said display data onto said display (screen 14 as shown in figure 1);

Art Unit: 2674

display control means for controlling a picture projected by said display means based on display control signal input (LCD controller 43 as shown in figure 5, column 8, lines 48-49); the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15 (column 10, lines 19-23); said input/output means being further connectable to at least one external peripheral equipment to input/output data pertaining to the supplementary identification information appended to input data (the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15) and a transmission code is predetermined for each of the cursor keys 5-8 and switches 9-11, and from which key or switch the direction is issued can be identified by the discrimination of the transmission codes with the MPU 39 (column 9, lines 21-25) and the ports IOA0-IOA8 Fig. 6 (39) are outputted signals for selecting mouse signal data corresponding to the personal computer 15 from among the mouse signal data corresponding to the various types of personal computer stored in the ROM Fig.6 (63).

However, Miichi fails to expressly teach input/output means connected to the control device adapted for generating display control signals controlling said display means.

Urade et al. teaches input/output means connected to the control device adapted for generating display control signals controlling said display means (JSB hub 31 linked to display 30 via microcontroller 38 as shown in figure 7). Urade et al. teaches USB hub connected to a host computer and a plural of

Art Unit: 2674

peripheral devices (column 4, lines 57-61, also figure 7), bidirectional data transfer between hub controller and microcontroller (column 5, lines 29-32) .

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Miichi, then couple the USB hub 31 as taught by Urade et al. to personal computer 15 in apparatus of Miichi for bi-directional interface link and connect the USB hub to the OHP projector for providing connection to extra peripheral devices to obtain the combined apparatus Miichi modified by Urade et al. because it would result in expanding connectivity to a plurality of devices, bi-directional data communication, and also flexible power control of USB devices as taught by Urade et al. (column 4, lines 36-47). And it is also obvious to a person of ordinary skill in the art at the time of the invention to know that said display means, said input/output means, and said display control means can be integrally contained within a single unit.

As to claim 2, see the same citation for claim 1. The projection display apparatus of claim 1 wherein said input/output means is a hub conforming to the USB (Universal Serial Bus) standard (apparatus Miichi modified by Urade et al. comprises USB Hub 31 shown in Urade et al. figure 7) and is connected to the control device having an interface conforming to the USB standard (note Urade et al. teaches USB hub 11 connected to host computer , column 4, lines 57-61 and controlling device is personal computer 15 of Miichi, also USB interface 37 is taught in figure 7 of Urade et al, and to an external peripheral equipment having an interface conforming to the USB standard (see Urade et al., column 1, lines

Art Unit: 2674

15-17, printer, keyboard, also see Urade et al. column 1, lines 30-34, devices include USB interface and a USB logical device).

As to claim 3, the projection display apparatus according to claim 1, wherein an operating input device (Urade et al. teaches keyboard, column 1, lines 14-15) for generating an operating input signal as an external peripheral equipment is connected to said input/output means Urade et al. already teaches a keyboard connected to USB hub , see column 1, lines 30-34, also USB Hub 31 provides a plurality of USB device ports 32-35 shown in figure 7) and wherein said display control means controls a picture projected by said display means (LCD controller shown in figure 5) in accordance with a pointer control signal (Miichi teaches mouse 18 for pointer control signals (as shown in figure 1) from the control device (figure 1 of Miichi teaches personal computer 15 as shown in figure 5) based on the operating input signal generated in said operating device (note Urade et al. aforementioned teaching of USB keyboard).

As to claim 4, see the same citation for claim 1. The projection display system according to claim 1 wherein a second projection display apparatus is connected as an external peripheral device to said input/output means (note Urade et al. teaching devices including monitors column 1, lines 14-15) as devices having USB interface in communication with hub repeater, column 1, lines 30-34, multiple ports for accommodating multiple USB devices in figure 3, it is obvious to a person of ordinary skill in the art to connect another projection display apparatus) and wherein said input/output means outputs display data and the display control signals from the control device to said second projection

Art Unit: 2674

display apparatus (note Urade et al. teaches USB hub controller and hub repeater., column 1, lines 25-34, this allows connections of a plurality of USB devices ; therefore communications from personal computer 15 of Miichi to a second projection display apparatus is then inherent because of the hub function. See (Miichi, column 8, lines 63-67 for display adjustment and column 9, lines 21-25 for identification information).

As for claim 5, Miichi discloses a projection display apparatus (liquid crystal projection apparatus, see Abstract) connected to a control device as a host (personal computer 15 as shown in figure 5) through a serial interface (link 16 as shown in figure 5, column, lines), in which data is transmitted/received bidirectionally to display a picture on a display screen 14 as shown in figure 5, column 7, lines 57-58), and

display control means for controlling a picture projected by said display means based on a display control signal input through said input/output means (LCD controller 43 as shown in figure 5, column 8, lines 48-49); the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15 (column 10, lines 19-23); said input/output means being further connectable to at least one external peripheral equipment to input/output data pertaining to the supplementary identification information appended to input data (the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15).

Art Unit: 2674

wherein said control device includes input/output means connected to the projection display apparatus and control means for outputting display control signals and display data to the projection display apparatus and to said external peripheral equipment connected to said projection display apparatus to cause the projection display apparatus to project a picture on the display screen (liquid crystal display panel, column 7, line 14) for receiving display data from said control device and projecting a picture (OHP 13, column 6, lines 60-62) represented by said display data onto said display (screen 14 as shown in figure 1); and said supplementary identification information appended to input data input through said input/output means to identify said projection apparatus (the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15) and a transmission code is predetermined for each of the cursor keys 5-8 and switches 9-11, and from which key or switch the direction is issued can be identified by the discrimination of the transmission codes with the MPU 39 (column 9, lines 21-25) and the ports IOA0-IOA8 Fig. 6 (39) are outputted signals for selecting mouse signal data corresponding to the personal computer 15 from among the mouse signal data corresponding to the various types of personal computer stored in the ROM Fig.6 (63).

However, Miichi fails to expressly teach input/output means connected to the control device adapted for generating display control signals controlling said display means.

Urade et al. teaches input/output means connected to the control device adapted for generating display control signals controlling said display means (JSB hub 31 linked to display 30 via microcontroller 38 as shown in figure 7). Urade et al. teaches USB hub connected to a host computer and a plural of peripheral devices (column 4, lines 57-61, also figure 7), bidirectional data transfer between hub controller and microcontroller (column 5, lines 29-32) .

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Miichi, then couple the USB hub 31 as taught by Urade et al. to personal computer 15 in apparatus of Miichi for bi-directional interface link and connect the USB hub to the OHP projector for providing connection to extra peripheral devices to obtain the combined apparatus Miichi modified by Urade et al. because it would result in expanding connectivity to a plurality of devices, bi-directional data communication, and also flexible power control of USB devices as taught by Urade et al. (column 4, lines 36-47). And it is also obvious to a person of ordinary skill in the art at the time of the invention to know that said display means, said input/output means, and said display control means can be integrally contained within a single unit.

As to claim 6, see the same citation for claim 5. The projection display a system according to claim 5 wherein the input/output means of the projection display apparatus is connected to an external peripheral equipment having an interface conforming to the USB Standard (Urade et al. teaches devices including printers, keyboards (column 1, lines 14-15) as devices having USB interface in communication with hub repeater, column 1, lines 30-34) and wherein the

Art Unit: 2674

input/output means of the control device is an interface pursuant to the USB standard (apparatus Miichi modified by Urade et al. teaches microcontroller 38 connected to USB hub 31 via microcontroller interface 37, see Urade et al. figure 7).

As to claim 7, the projection display system according to claim 5 wherein there is provided an operating input device (Urade et al. teaches keyboard, column 1, lines 14-15) connected as an external peripheral device to said input/output means of said projection apparatus to generate an operating input signal, and wherein said display control means controls a picture projected by said display means on said display screen (OHP 13 shown in figure 1, LCD controller 43 shown in figure 5) in accordance with a pointer control signal (Miichi teaches mouse 18 shown in figure 1) from said control device (personal computer 15 shown in figure 5) which is based on the operating input signal generated in said operating input device (note Urade et al. aforementioned teaching of USB keyboard).

As to claim 8, see the same citation for claim 5. The projection display system according to claim 5 wherein said projection display apparatus is a first projection display apparatus, and a second projection display apparatus is connected as an external peripheral device to said input/output means of said first projection display apparatus (note Urade et al. teaching devices including monitors (column 1, lines 14-15) as devices having USB interface in communication with hub repeater., column 1, lines 30-34, multiple ports for accommodating multiple USB devices in figure 3, it is obvious to a person of

Art Unit: 2674

ordinary skill in the art to connect another projection display apparatus) and wherein the input/output means of said first projection display apparatus outputs display data and the display control signal from the control device to said second projection display apparatus (note Urade et al. teaches USB hub controller and hub repeater, column 1, lines 25-34, this allows connections of a plurality of USB devices ; therefore! communications from personal computer 15 of Miichi to a second projection display apparatus is then inherent because of the hub function. See (Miichi, column 8, lines 63-67 for display adjustment and column 9, lines 21-25 for identification information).

As to claim 10, Miichi modified by Urade et al. teaches receiving means for receiving receiver 45 shown in (figure 1) a remote control signal from a remote control device (remote controller 1 shown in figure 1, column 7, lines 43-49) and providing a detection signal in response thereto (input signal to MPU 39 shown in figure 5), wherein said display control means outputs a pointer control signal to said display means to shift a pointer (cursor keys 5-8 shown in figure 2 serve to shift a pointer) included in said picture projected by said display means responsive to said detection signal from said receiving means (image signal on basis of process predetermined in the position specified by mouse 18, column 7, lines 5-8).

As to claim 11, Miichi modified by Urade et al. teaches the projection display system according to claim 5 (see same citations for claim 5) , wherein said projection display apparatus further comprises receiving means for receiving (receiver 45 shown in figure 1) a remote control signal from a remote control

Art Unit: 2674

device (remote controller 1 shown in figure 1, column 7, lines 43-49) and providing a detection signal in response thereto (input signal to MPU 39 shown in figure 5), wherein said display control means outputs a pointer control signal to said display means to shift a pointer (cursor keys 5-8 shown in figure 2 serve to shift a pointer) included in said picture projected by said display means responsive: to said detection signal from said receiving means (image signal on basis, of process predetermined in the position specified by mouse 18, column 7, lines 5-8).

As for claim 12, Michii teaches the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15 (column 10, lines 19-23).

As for claim 13, Michii teaches the type of the personal computer 15 is identified on the basis of the horizontal(H) and vertical(V) synchronizing signals inputted from the personal computer 15 (column 10, lines 19-23).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miichi in view of Urade et al. and further in view of Nguyen et al. (US Patent 5,682,181).

As to claim 9, the combination of Miichi and Urade fails to teach control means switching the application program generating the display based on the operating input signal. However, Nguyen et al. teaches a control means switching the application program generating the display based on the operating input signal : method and display control system for a projection display system,

Art Unit: 2674

see abstract, teaching main menu window 60 with different selections, switching from main menu window 60 to draw window 80 (column 5, line 40 through column 6, line 5) based on user selection. It would have been obvious to a person of ordinary skill in the art the time of the invention at the time the invention was made to utilize the apparatus Miichi modified by Urade et al., then modify the software by Miichi to include menu selection of applications as taught by Nguyen et al., to obtain the combined apparatus Miichi modified by Urade et al and Nguyen et al., because it would provide user greater flexibility to select appropriate software application by menu selection.

This corresponds to the projection display system according to claim 7 wherein said control device includes operating input means adapted for being actuated to generate said operating input signal (Note Miichi teaching aforementioned mouse 18 in figure 5 as operating input means), said control means switching the; application program (Nguyen et al. aforementioned teaching of main menu window/draw window) generating the display based on the operating input signal from said operating input means or the operator input device connected to the projection display apparatus.

Response to Arguments

6. Applicant's argument filed on August 18, 2005 has been fully considered but is not persuasive.

Applicant's argued that the prior art does not teach or suggest "supplementary identification information appended to input data". Examiner

Art Unit: 2674

strongly disagrees with the applicant because the prior art teaches the MPU Fig.5 (39) distinguishes the type of personal computer 15 connected to the main body Fig.1 (2) through cable 17 on the basis of the inputted synchronizing signals an horizontal (H) and vertical (V) synchronizing signal in the input circuit Fig.5 (35). After the personal computer 15 is identified, the MPU (39) has to find out the type of mouse that the computer can use depending on its type. The ports IOA0-IOA8 of the MPU (39) are outputted signals for selecting or identifying the mouse signal data corresponding to the personal computer 15 from among the mouse signal data corresponding to the various types of personal computer stored in ROM Fig.6 (63) through cable Fig.1 (16). Selecting the type of mouse which is an input device that is compatible with computer 15 is equivalent to "supplementary identification information appended to input data". The pending claims, due to lack of claim breadth, remain rejected.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

Any response to this action should be mailed to: If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Commissioner of Patents and Trademarks

Art Unit: 2674

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121

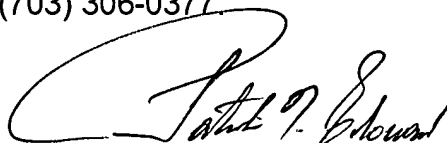
Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the technology Center 2600 Customer
Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Art Unit 2674



PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER

Date 9/19/2005